

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: )  
Tadahiro OHMI et al. ) Atty. Docket: **SUGI 0070**  
Serial No. \_\_\_\_\_ (Continuation of )  
PCT/JP00/03659 filed June 5, 2000 )  
Filed: Herewith )  
For: REACTOR FOR GENERATING ) Date: July 12, 2001  
MOISTURE )

**PRELIMINARY AMENDMENT (A)**

**BOX: Patent Application**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Prior to calculating the filing fee, please amend the above-captioned application as

follows:

**IN THE CLAIMS:**

Please replace claim 7 with the following:

7. (Amended) A reactor as defined in claim 5, wherein said barrier coat is formed of a component selected from the group consisting of TiN, TiC, TiCN, TiAlN, Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub> and CrN.

Please insert the following new claim:

13. (New) A reactor as defined in claim 6, wherein said barrier coat is formed of a component selected from the group consisting of TiN, TiC, TiCN, TiAlN, Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub> and CrN.

**IN THE ABSTRACT:**

Kindly replace the Abstract with the following:

A reactor for generating moisture wherein ignition of hydrogen gas, backfire to the gas supply source side, and the peeling off of the platinum coat catalyst layer inside are all prevented more completely to further increase the safety of the reactor for generating moisture, and wherein the dead space in the interior space is reduced to further reduce the size of the reactor shell. The reactor has a reactor shell A with an interior space; a reflector on an inlet side facing a gas feed port in the interior space of the reactor; a reflector on an outlet side facing a moisture gas take-out port in the interior space; and a platinum coat catalyst layer 8 formed on an inside wall of a reactor structural component on the outlet side. Hydrogen and oxygen fed into the interior space of the reactor react without combustion.



**VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE CLAIMS**

7. A reactor as defined in ~~anyone of claims~~claim 5 or 6, wherein said barrier coat is formed of a component selected from the group consisting of TiN, TiC, TiCN, TiAIN, Al<sub>2</sub>O<sub>3</sub>, Cr<sub>2</sub>O<sub>3</sub>, SiO<sub>2</sub> and CrN.

Claim 13 has been added.

## VERSION WITH MARKINGS TO SHOW CHANGES MADE TO THE ABSTRACT

### ABSTRACT

A reactor for generating moisture wherein ignition of hydrogen gas, backfire to the gas supply source side, and the peeling off of the platinum coat catalyst layer inside are all prevented more completely to further increase the safety of the reactor for generating moisture, and wherein the dead space in the interior space is reduced to further reduce the size of the reactor shell. The reactor ~~comprises~~has a reactor shell A with an interior space; formed ~~with a reactor structural component on the inlet side and a reactor structural component on the outlet side opposed to and united with each other by welding~~, the reactor structural component 1 on the inlet side provided with a gas feed port 1a and the reactor structural component 2 on the outlet side provided with a moisture gas take out port 2a; a reflector on ~~the~~an inlet side facing ~~the~~a gas feed port in the interior space of the reactor; a reflector on ~~the~~an outlet side facing ~~the~~a moisture gas take-out port in the interior space; and a platinum coat catalyst layer 8 formed on ~~the~~an inside wall of ~~the~~a reactor structural component on the outlet side, wherein, ~~Hydrogen and oxygen fed into the interior space of the reactor react through the gas feed port are brought into contact with the platinum coat 8b to activate the reactivity, thereby reacting hydrogen and oxygen into water in a non-combustion state without combustion.~~